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MILK IN FAMILY DIETS

ESTHER F. PHIPARD
Family Economics Division, Bureau of Human Nutrition and Home Economics, U. S. Department of Agriculture

Milk has a unique place in present-day diets. Not only is milk in its several forms the chief supplier of calcium, furnishing three-fourths of the total in our national dietary, but it accounts for nearly half the riboflavin, one-fourth the protein, and important amounts of several other nutrients. Small wonder then that educational efforts to improve diets have put great emphasis on milk.

Trends in consumption are encouraging. Forty years ago we used about two cups a day per person, as compared with an average of two and three-fourths cups today. These figures include fluid milk and its equivalent (in calcium and protein) of evaporated and dry milk, of cheese, cream, and ice cream.

This level of milk consumption, along with other sources of calcium in our national supply, would be about enough to provide the daily allowance of calcium recommended by the National Research Council if everyone shared according to need.

Consumption Differences

But there are wide differences in consumption. Income is one factor affecting quantities used. When families have more money, they tend to buy more milk and certain of the other dairy products. Studies of city family diets made by the Bureau of Human Nutrition and Home Economics in 1948 showed that increases in milk consumption at successively higher income levels were fairly large, especially up to about the $4,000 income level. Influence of income was most marked for cream and ice cream, next for cheese and fluid milk; consumption of evaporated milk, after an initial rise, decreased as family income rose further.

Even families with relatively high incomes used widely different amounts of milk. Of those studied with incomes between $5,000 and $7,500, 24 percent used less than a pint a day per person, and 23 percent a quart or more.

Regional differences in consumption of dairy products were shown by the Bureau's studies of family diets in 1948 in four large cities. In all its forms, more milk was used in Buffalo, Minneapolis-St. Paul, and San Francisco than in Birmingham, Alabama. Families in the three cities of the North and West used more than twice as much whole fluid milk per person as those in Birmingham. But the southern families used more buttermilk and evaporated milk. In Birmingham, where nonfat dry milk had been on the market for several years, one out of six families used some during the survey period in amounts averaging about a pound a week or the equivalent of about five quarts.

Milk consumption is variable among farm families, too, those that keep cows tending to consume larger quantities of milk than those who buy their supply. Dietary studies among families on small cash-crop farms in the South have shown that as many as one-third in some areas use less than a half-pint of milk a day per person. On the other hand, some families use large quantities of milk.

Practically every study of what people eat—whether it concerns family diets, or food habits of school children or other individuals—gives the same picture. In every group there are substantial numbers of people using too little milk. It is not surprising to find then that calcium is the nutrient most often low in diets as compared to recommended intake. In the 1948 surveys, three to four out of ten city families did not have the amount of calcium recommended by National Research Council. Among individuals, adolescents fail to meet their dietary needs more often than younger children; teen-age girls more often than boys; and women more often than men.

Dr. Phipard

Economy of Milk

Milk is by far the most economical source of calcium in diets, and offers good returns for the money in many other nutrients, too. The low cost food plan of Bureau of Human Nutrition and Home Economics suggests close to six quarts a week for children of different ages; five quarts for adults, with extra allowances in pregnancy and lactation. Liberal quantities like these provide best assurance that diets will have enough calcium; they will go far toward meeting needs for riboflavin and high quality protein.

Much remains to be done to bring up milk consumption where it is too low. Faced with high food prices, consumers need to know more about uses and nutritional values of various forms of milk and milk products. They need, above all, to be convinced of the nutritional importance of milk, not only for children but for grown-ups as well. This is a challenge that teachers, nutritionists, and health workers would do well to accept.

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Glances AT NUTRITION RESEARCH

Scientists continue to direct their efforts toward nutrition problems of public health significance. The following brief reports of research dealing with dental caries, coronary disease, methods of improving dietary habits, and effects of food processing on nutritional values are all milestones of their progress.

Environment and Dental Caries—Lower altitudes and relatively fewer hours of sunshine were found to be associated with a higher prevalence of dental caries in native born and reared Oregon school children. This was revealed by a comparative study of dental caries attack rates in children east and west of the Cascade Range — areas which differ widely in climatic conditions, agricultural production, and topography. The study also revealed that the fluoride content of the public water supply, the availability of dental services, and the consumption of sweets were not responsible factors in the observed difference in incidence of dental caries in the children living in the two areas.

—Am. J. Public Health 41:1052 (Sept.) 1951.

Arterial Synthesis of Cholesterol—Evidence has recently been presented that cholesterol can be synthesized in the arterial wall. This finding is of significance as this material is found deposited in the inner walls of arteries in the condition known as atherosclerosis — responsible for a major number of adult deaths from heart ailments. The authors suggest this source of cholesterol may be of great importance in the development of the disease.

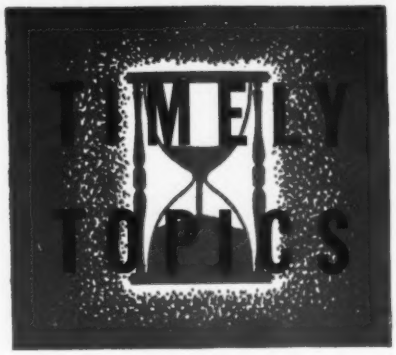
—Science 113:747 (June) 1951.

Milk for Alaskan Children — Serving milk to school children in Alaska proved to be an effective method of increasing their milk intake at home as well as at school. In three towns where milk is not locally produced, about 266 children were served reconstituted evaporated milk twice daily for eleven to twelve weeks. The acceptance of the milk by the children varied from 69 to 100 percent. This variation was correlated with the method of service and cooperation and interest of the teachers. At the end of the study home milk consumption had increased by 38 percent per child in the three towns.

—J. Am. Diet. Assn. 27:758 (Sept.) 1951.

Terminal Heating of Infant Formulas —The nutritive value of milk proteins does not appear to be significantly altered by terminal heating of infant formulas when applied according to prescribed methods. This conclusion was reached from data obtained from studies comparing the nutritive value of infant formulas before and after terminal heating. Pasteurized and evaporated milks were used in the preparation of the formulas in different tests, and rat growth and rat repletion were employed to measure the nutritive value of the milk proteins in the formulas.

—J. Am. Diet. Assn. 27:488 (June) 1951.



Dr. Esther F. Phipard is Assistant Head of the Family Economics Division, Bureau of Human Nutrition and Home Economics. During her 15 years with this Bureau she has been engaged in studies of family food consumption and dietary adequacy, and in interpretation of these findings in light of nutrition data. Mrs. Phipard is a member of the National Research Council's Committee on Food Composition.

The newly formed National Midcentury Committee for Children and Youth, Inc. held its first meeting in October at Chicago. National organizations, state committees, youth groups, and departments of the federal government were represented. The committee adopted a program designed to give effective leadership to follow-up on recommendations of the Midcentury White House Conference. It will work through existing organizations.

Katharine F. Lenroot has resigned as Chief of the Children's Bureau. Her successor is Martha M. Eliot, M. D. Dr. Eliot was made Associate Chief of the Bureau in 1941. She headed the Health and Medical Services of the Bureau, which included material on child health and the crippled children's program. For the past two years Dr. Eliot has been serving as Assistant Director General of the World Health Organization.

NUTRITION IN INDUSTRY — THE ROLE OF THE INDUSTRIAL NURSE

By Mildred M. J. Moore, R.N., B.S.P.H.N. Industrial Nursing Consultant
Bureau of Nursing, Illinois Department of Public Health

Health workers recognize that good nutrition is fundamental to maximum health and optimum performance. The well-prepared industrial nurse is in a key position to interpret to top executives and managerial staff the value of good nutrition for the worker and his family. Instances of poor eating habits are observed at all income levels. Education, nationality, homemaking ability, indifference are influential factors regardless of income.

Industrial nurses are expanding health information programs for workers with increased consideration given to nutrition. Illustrating this is the response to a questionnaire sent out recently to industrial nurses in Illinois, by the Subcommittee on Health Education in Industry, Health Division, Welfare Council of Metropolitan Chicago. Thirty-five percent of the replies listed need for posters, flyers, and pamphlets on proper diet, cleanliness, proper methods of handling foods, and the benefits to the individual of good nutrition.

Nurses report greatest effectiveness is achieved in nutrition education through individual counseling with the worker when he reports routinely or for emergency care to the health service. All workers may not be reached in this manner, however. Bulletin boards displaying authentic material or colorful, easily-read posters may be used. Frequently pamphlets are displayed near the bulletin board with a friendly "Help Yourself" or "Take One Home" sign. Many community and national agencies are quite liberal in supplying material of this type. Materials stressing general nutrition, the importance of and what constitutes a well-chosen diet are preferred.

Nurses realize that the ideal situation in developing the nutrition program would be for the plant to have the services of a part or full time nutritionist. This is not always feasible. Nurses alert to the value of using community resources seek the counsel of a local nutritionist. Thus the nurse supplements her own limited training and experience in nutrition. She also may be instrumental in bringing opportunity for counsel with community nutrition resources to an industry's attention and service.

Many types of food services are found in industrial plants, ranging from a snack bar to the most modern cafeteria service. One can find all degrees of sanitary food handling and food facilities in all types of industrial food service. The nurse must begin with the situation as she finds it and work from there. In plant lunchrooms with a limited and sometimes untrained staff, the industrial nurse attempts to establish good rapport with the person responsible for operating the food service or managing the area in which foods are eaten. In this way, the nurse can be instrumental in raising standards of personal hygiene of food handlers and environmental sanitation. The five "C's" of good food handling may be stressed: Cleanliness, Compliance with the Law, Courtesy, Carefulness, Common Sense. The nurse may find it possible to extend gradually her influence to encourage improvements in food service.

The nurse frequently is assigned a regular space in the house organ for items of interest to health and well-being of workers. Here is an excellent avenue for the nurse to influence food handlers and consumers.

The nurse in industry has a specific function in counseling with the worker handicapped by a chronic condition such as diabetes, high blood pressure, or cardiac condition. This is done only after consultation with the worker's physician. It is important to help these people with partially disabling conditions to understand the part good nutrition plays in enabling them to remain in the physically employable group.

We are hearing much about the team approach in nursing service today. If improved nutrition for our workers is to become a reality, the nurse knows that management, workers, and food handlers must all get in the game and pull together, and the industrial nurse makes an excellent coach for this team.

A DEVELOPMENT IN FAMILY LIFE EDUCATION

By Maxine E. Ousley, Director, Home Economics,
Redford High School, Detroit, Michigan

The first Family Living class at Redford High School was organized in 1949 with full support of the Detroit Board of Education to aid in development of healthy personalities and improved family relations. Forty-seven senior girls enrolled in the course, motivated by sincere desire to try to understand themselves better in relation to their family problems.

The course was founded on basic study needs ascertained by survey of parents and other community members. The class listed personal problems with which they needed help and which they felt would make for improved family relations. Students seemingly felt more secure since they had shared in the development of the course based on problems which they knew were "real" and "alive."

The neighborhood and school librarians set up special shelves with approved literature in the field. We noted interest in this literature by parents, as well as students. One day a week was given to films, outside speakers, panel discussions, and field trips.

The entire school heard seven radio broadcasts prepared and given by panels of students in these classes. The series, part of the entire Detroit program, was called "Youth Looks At Life." Some of the topics were: Children in the Home; In-Laws in the Home; Dating Do's and Don't's; Having Fun Together in Our Family.

Students felt selecting the basic topics for discussion and study was good democratic procedure, and asked to share in organizing the marking system, activity program, and weekly schedule. Their plans were studied and discussed in class. The program evolved was approved by the principal and supervisor, and the new system of class experimentation was launched.

Students feel the program is strengthened by including members of the com-

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—that a recent research study showed that ice cream is completely digested and its nutrients are readily available for use in the body?

—that the world's population has increased over 800 million in the past 50 years?

—that Plinius tells us Zoroaster lived on cheese as his protein food for thirty years in the wilderness?

—that the A. M. A. Council on Foods and Nutrition has reported frozen, concentrated orange juice can be as valuable a source of vitamin C as fresh?

—that the world's 1950 butter production is estimated at 4.3 million tons?

—that one out of every 25 families in the United States derives its livelihood from the dairy industry?

—that in a sampling study of school lunch management in 39 schools throughout the country, it was found that milk was one of the most popular foods included in the lunches?

—that in a group of adults in a recent weight control study, 72.5 percent gave overeating as a major cause of their excess weight?

THINGS YOU'LL LIKE TO READ

Food and You — Edmund S. Nasset. Springfield, Ill.: Charles C. Thomas. 1951. $3.00.

Here is an interesting and easy-to-read book on the too frequently dry subject of composition and utilization of foods. There is an amazing amount of up-to-date information in this short book. Dr. Nasset has made a real contribution to nutrition education in writing this informative and enjoyable book.

Recent publications of Bureau of Human Nutrition and Home Economics, Agricultural Research Administration, United States Department of Agriculture: Washington, D. C. 1951.

Planning Food For Institutions. Ag. Handbook No. 16. 45 cents. Guide for planning diets for institutions, including estimating quantities of food for a nutritionally adequate diet, keeping food records, and a food purchasing guide. **Recipes for Quantity Service.** PA-178. Another in the series of leaflets of quantity recipes featuring widely available foods. Yields 25, 50, 100 portions.

Food and Nutrition Manual for Institutions — Margaret M. Walsh. Cleveland: The Welfare Federation of Cleveland. 1950. $2.00.

(Wire binder type book) Especially written to help the untrained person who is in charge of food service for an institution. Clear and readable, covers meal planning, marketing, food preparation. Menu suggestions and recipes, camp cookery, sanitation, and equipment and layout.

ERRATUM: Item: Nutrition Problems of Combat Rations by Dr. Spector—Nutrition News 15:1 (Oct.) 1951. 65° F. to 130° F. should read —65° F. to 130° F.

A DEVELOPMENT IN FAMILY LIFE EDUCATION

(Continued from Page Seven)

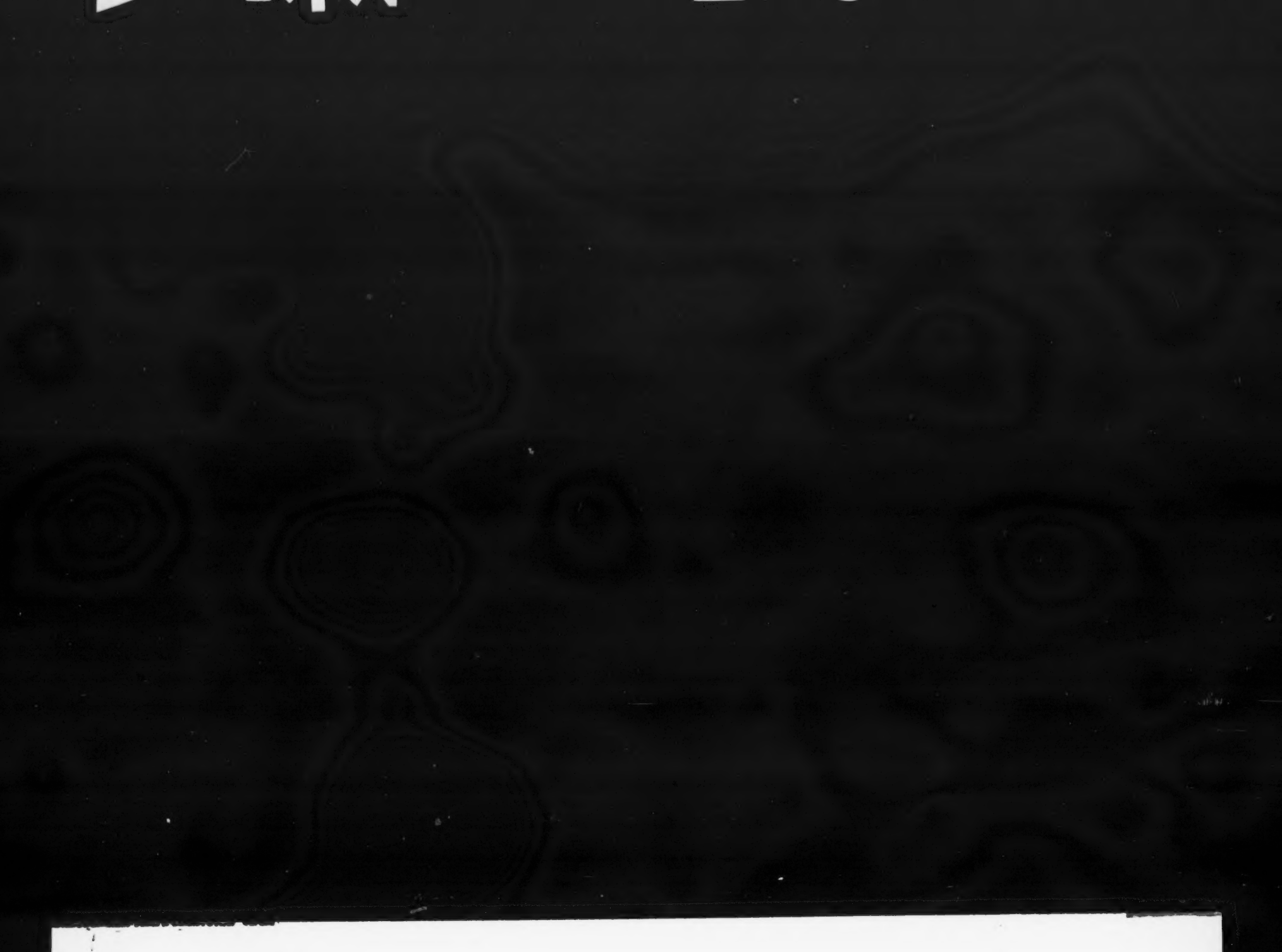
munity who contribute to the activity program. At the time we study budgeting, we invite a community expert (preferably a parent) in the field of finance. Last year a dentist and a doctor spoke on "Children in the Home and Their Care" and "Physical Ailments of the Teen-age Group." A judge of the Juvenile Court talked to the groups on juvenile delinquency.

The teaching has included "doing" not just "saying"; our activity program from time to time includes class breakfasts and picnics, supper parties with friends and parents.

Parents have played an important role in assisting the school in establishing this program through their verbal and written contributions, visits to class, and efforts to maintain such classes through their club activities and membership.

A recent survey was developed by students for use in a display case. The parents were asked to help us build a "Bill of Rights for Parents" and a "Bill of Rights for Students." Students listed those "helps" which they expected of parents. By far the most noted item was "understanding."

Today there are eight classes (four boys' and four girls') and five teachers. Classes are taught by teachers from various departments, at present from Home Economics, Social Studies, and Health Education.

Family Living is a five-hour college accredited course and is set up primarily for senior students. However, any counselor who feels a student below this level would profit by such a course may enroll that student in the class. The majority of senior students elect this subject as their final elective. The enrollment shows that students are vitally interested in participating in plans and attempts to improve their present and future lives.

The home still stands as the basic unit of society, and all education should be founded on the principle of developing, supporting, and enhancing courses which strengthen and cement relationships between home, school, and community.